Functional Hierarchy of Roles for the Sole Power Mobile App

This document outlines the functional hierarchy of roles within the Sole Power mobile app, as defined by the RFP. Each role will have specific functionalities and access levels, ensuring a secure and user-friendly experience.

1. Participant Role

- **1.1 Account Management**
  - **1.1.1 Sign Up:**
    - Allow users to create an account using email and password.
    - Option to link existing social media accounts for streamlined sign-up.
    - Validate email address and password strength.
    - Store user data securely (name, email, password, etc.).
  - **1.1.2 Login:**
    - Secure login using email and password.
    - Implement two-factor authentication for enhanced security.
    - Allow password reset functionality.
    - Store user session data securely.
  - **1.1.3 Profile Management:**
    - Allow users to update their profile information (name, email, password, etc.).
    - Option to add a profile picture.
    - Option to link social media accounts.
  - **1.1.4 Logout:**
    - Securely log out users from the app.
    - Clear user session data.
- **1.2 Trip Tracking and Logging**
  - **1.2.1 Trip Start/End:**
    - Implement a "Start Trip" button to initiate trip tracking.
    - Use GPS to track location and distance traveled.
    - Allow users to manually enter trip details (start/end location, distance, mode of transport, etc.).
    - Implement a "End Trip" button to stop tracking and save trip data.
  - **1.2.2 Trip Type Selection:**
    - Allow users to select the trip type (work, errand, social, other).
    - Option to add a description for "other" trip types.
  - **1.2.3 Mode of Transport Selection:**
    - Allow users to select the mode of transport (walk, bike, run, e-bike, skate, other).
    - Option to add a description for "other" modes of transport.
  - **1.2.4 Trip Log:**
    - Display a list of all logged trips with details (date, time, distance, mode of transport, trip type, etc.).
    - Allow users to edit or delete logged trips.
    - Option to filter trips by date, mode of transport, or trip type.
- **1.3 Dashboard**
  - **1.3.1 Personal Dashboard:**
    - Display cumulative data for the current season (Memorial Day - Columbus Day).
    - Include number of trips, mileage, gas saved, CO2e reduced, money saved.
    - Option to switch to view data for the calendar year and over time (life of account to date).
  - **1.3.2 Leaderboards:**
    - Display individual and team leaderboards for the current season.
    - Option to view historical leaderboards from previous years.
    - Display participant name, team, number of trips, total miles, gas saved, CO2e reduced, money saved.
  - **1.3.3 Season Dashboard:**
    - Display real-time dashboard for the current challenge.
    - Include cumulative miles logged, CO2e/GHG reductions, total trips logged, number of active participants.
    - Option to link to the dashboard on www.solepower.org.
  - **1.3.4 Lifetime Dashboard:**
    - Display cumulative data for the lifetime of the program.
    - Include the same metrics as the Season Dashboard.
- **1.4 Social Features**
  - **1.4.1 Team Management:**
    - Allow users to create or join teams.
    - Option to request team approval from an administrator.
    - Display team members and their progress.
  - **1.4.2 Social Sharing:**
    - Allow users to share their progress and achievements on social media platforms.
    - Option to share trip details, leaderboard rankings, and personal achievements.

- **1.5 Notifications:**
  - **1.5.1 Push Notifications:**
    - Send push notifications to participants for reminders, updates, and challenges.
    - Option to customize notification settings.
  - **1.5.2 Email Notifications:**
    - Send email notifications for important updates and program announcements.
- **1.6 Incentives:**
  - **1.6.1 Incentive Program:**
    - Implement a system to track and award incentives based on participant activity.
    - Option to redeem incentives for rewards or discounts.
  - **1.6.2 Gamification:**
    - Implement gamification elements to encourage participation and engagement.
    - Include badges, achievements, and leaderboards to motivate users.

2. Administrator Role

- **2.1 User Management:**
  - **2.1.1 Approve/Deny Teams:**
    - Review and approve or deny team requests.
    - Manage team membership and access.
  - **2.1.2 Manage User Accounts:**
    - Change user passwords or force password resets.
    - Add or remove participants from teams.
    - Edit participant information.
  - **2.1.3 User Data Export:**
    - Export user data for analysis and reporting.
- **2.2 Trip Management:**
  - **2.2.1 Edit Trips:**
    - Edit trip details for participants.
    - Correct errors or update information.
  - **2.2.2 Trip Data Analysis:**
    - Access and analyze trip data for program evaluation.
    - Generate reports on participant activity and program impact.
- **2.3 Program Management:**
  - **2.3.1 Dashboard Management:**
    - Access and manage the program dashboard.
    - Update program information and settings.
  - **2.3.2 Incentive Management:**
    - Manage the incentive program.
    - Set up and award incentives.
  - **2.3.3 Challenge Management:**
    - Create and manage challenges for participants.
    - Set up challenge rules and rewards.
- **2.4 Communication:**
  - **2.4.1 Email Newsletter:**
    - Manage the weekly email newsletter.
    - Send out program updates and announcements.
  - **2.4.2 Push Notifications:**
    - Send push notifications to all participants.
    - Announce challenges, events, and program updates.
- **2.5 System Management:**
  - **2.5.1 Backend Access:**
    - Access the backend database and system settings.
    - Manage user data and program settings.
  - **2.5.2 System Updates:**
    - Update the app with new features and bug fixes.
    - Ensure system security and stability.

3. Developer Role

- **3.1 App Development:**
  - **3.1.1 Design and Development:**
    - Design and develop the mobile app according to the RFP specifications.
    - Implement all required features and functionalities.
  - **3.1.2 Code Management:**
    - Manage the app codebase using version control systems.

- Ensure code quality and maintainability.
  - **3.1.3 Testing and Debugging:**
    - Conduct thorough testing to ensure app functionality and stability.
    - Debug and resolve any issues or bugs.
- **3.2 Integration:**
  - **3.2.1 API Integration:**
    - Integrate the app with existing systems and APIs.
    - Ensure seamless data exchange between the app and other platforms.
  - **3.2.2 Database Integration:**
    - Integrate the app with the database to store and manage user data.
    - Ensure data security and integrity.
- **3.3 Maintenance and Support:**
  - **3.3.1 Ongoing Support:**
    - Provide ongoing technical support for the app.
    - Resolve any issues or bugs reported by users.
  - **3.3.2 App Updates:**
    - Release app updates to address bugs, improve performance, and add new features.
    - Ensure compatibility with different devices and operating systems.

This functional hierarchy provides a detailed breakdown of the roles and responsibilities within the Sole Power mobile app. It serves as a foundation for the Scope of Work document, outlining the specific functionalities and technical requirements for each role.